

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 December 2004 (02.12.2004)

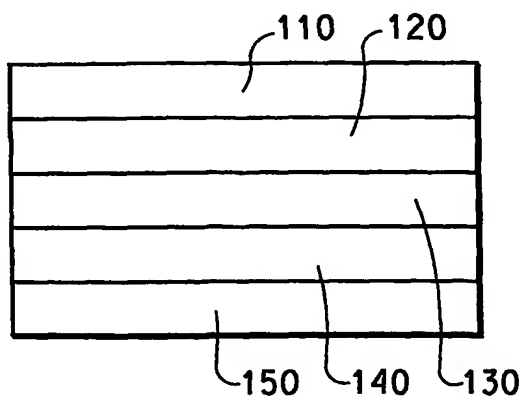
PCT

(10) International Publication Number
WO 2004/105150 A1

- (51) International Patent Classification⁷: **H01L 51/30**, 51/52, H01B 1/12, C08G 61/12, 73/02, C08K 3/10
- (21) International Application Number:
PCT/US2004/016409
- (22) International Filing Date: 19 May 2004 (19.05.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/471,797 19 May 2003 (19.05.2003) US
- (71) Applicant (for all designated States except US): **E.I. DUPONT DE NEMOURS AND COMPANY** [US/US]; 1007 MARKET STREET, WILMINGTON, DE 19898 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HSU, Che-Hsiung** [US/US]; 4803 Mermaid Boulevard, Wilmington, DE 19808 (US). **LANG, Charles, D.** [US/US]; 6203 Stow Canyon Road, Goleta, CA 93117 (US). **PARKER, Ian, D.** [GB/US]; 3025 Hermosa Road, Santa Barbara, CA 93105 (US).
- (74) Agent: **CAPRIA, Mary Ann**; **E. I. DU PONT DE NEMOURS AND COMPANY**, LEGAL PATENT RECORDS CENTER, 4417 Lancaster Pike, Wilmington, DE 19805 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HOLE TRANSPORT COMPOSITION

100



(57) Abstract: The invention relates to aqueous compositions comprising at least one doped conductive polymer, at least one co-solvent, and at least one metal cation selected from Group 1 metals or Group 2 metals or mixtures thereof.